Micropilot FMR63B – 80 GHz radar sensor

More simplicity with the specialist for hygienic applications

Benefits:
- Fulfils highest compliance requirements of the industry
- Easy handling through intuitive operation and wizards, for commissioning and verification
- Increased productivity thanks to process monitoring, verification also of the radar’s accuracy and diagnostics in the running process with Heartbeat Technology
- Simple Display of device status – A change in the backlighting from green to red highlights errors immediately
- Simple device integration into asset management systems through digital communication

Specs at a glance
- **Accuracy** +/-1 mm (0.04 in)
- **Process temperature** -40 °C ... +200 °C (-40 °F ... +392 °F)
- **Process pressure / max. overpressure limit** Vacuum...25 bar (363 psi)
- **Max. measurement distance** 80 m (262 ft)
- **Main wetted parts** PEEK or PTFE

Field of application: Micropilot FMR63B is part of the new generation of 80 GHz radar sensors. Thanks to its complete hygienic design it is suitable for continuous non-contact level measurement in hygienic applications. Wizards guide users through commissioning, proof tests and verification of the devices and thus guarantee a simple operation. Heartbeat Technology offers verification and monitoring functions to identify anomalies or checking the measurement accuracy.

Features and specifications
### Measuring principle
Level radar

### Characteristic / Application
Premium device for continuous non-contact level measurement with hygienic requirements (ASME BPE, USP Class VI);

### Specialities
Heartbeat Technology,  
SIL 2/3 according to IEC 61508,  
Bluetooth® commissioning;  
Operation and maintenance with SmartBlue app;  
HistoROM;  
RFID TAG for easy identification;  
Very narrow beam angle

### Supply / Communication
2-wire (HART/ PROFIBUS PA)  
PROFINET with Ethernet-APL  
Bluetooth® wireless technology

### Frequency
W-Band (~80 GHz)

### Accuracy
\(+/-1 \text{ mm (0.04 in)}\)

### Ambient temperature
\(-40 ^\circ \text{C} \ldots +85 ^\circ \text{C} (-40 ^\circ \text{F} \ldots +185 ^\circ \text{F})\)

### Process temperature
\(-40 ^\circ \text{C} \ldots +200 ^\circ \text{C} (-40 ^\circ \text{F} \ldots +392 ^\circ \text{F})\)

### Process pressure / max. overpressure limit
Vacuum...25 bar (363 psi)

### Main wetted parts
PEEK or PTFE
## Continuous / Liquids

<table>
<thead>
<tr>
<th><strong>Process connection</strong></th>
<th>Thread: M24</th>
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<tbody>
<tr>
<td><strong>Process connection hygienic</strong></td>
<td>NEUMO BioControl; Slotted-nut DIN11851; Varivent; Tri-Clamp ISO2852</td>
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<tr>
<td><strong>Max. measurement distance</strong></td>
<td>80 m (262 ft)</td>
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<tr>
<td><strong>Communication</strong></td>
<td>HART/ PROFIBUS PA PROFINET with Ethernet-APL Bluetooth® wireless technology and app (optional)</td>
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<tr>
<td><strong>Certificates / Approvals</strong></td>
<td>IEC Ex, ATEX, CSA C/US, EAC Ex, JPN Ex, KC Ex, INMETRO Ex, NEPSI Ex, UK Ex;</td>
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<td><strong>Safety approvals</strong></td>
<td>Overfill protection WHG; KTW drinking water approval W270; NSF/ANSI 61 drinking water approval; SIL 2 / SIL 3</td>
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<td><strong>Design approvals</strong></td>
<td>Acceptance test certificate 3.1, EN10204; EU Food Contact Material (EC) 1935/2004; US Food Contact Material FDA CFR 21; Declaration of Conformity ASME B31.3; Conformity to cGMP; CoC ASME BPE; CRN approval</td>
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Continuous / Liquids

**Hygienic approvals**
- 3-A;
- EHEDG;
- CoC-ASME BPE

**Options**
- Display,
- Customized settings,
- App 'SmartBlue' for commissioning and operation via Bluetooth
- Gas-tight implementation;
- Overvoltage protection;
- PWIS free

**Application limits**
- Process temp. > 200°C (392°F) -> FMR62
- Strong foam, stilling well and bypass (>10 m) -> FMR5x,FMP5x

More information [www.endress.com/FMR63B](http://www.endress.com/FMR63B)